

WHAT IS CLAIMED IS:

1. A method for mounting components to a hardware casing for a device, comprising:
determining a pattern of interconnects to apply to an interior surface of the
5 hardware casing, the pattern comprising at least one independent path for transmitting a
signal between the components, wherein the pattern is designed for mounting the
components to the interior surface based upon a topography of the interior surface; and
applying the pattern of interconnects to the interior surface, the application being
configured for the interior surface to couple the components with the pattern of
10 interconnects based upon the topography of the interior surface.
2. The method of claim 1, further comprising coupling the components to the interior
surface to mount the components to the hardware casing, the components being
manufactured independently from the device.
- 15 3. The method of claim 2, wherein coupling the components to the interior surface
comprises mounting a sensor to the hardware casing to couple the sensor with the pattern
of interconnects.
- 20 4. The method of claim 3, wherein mounting the sensor comprises mounting the sensor to
the interior surface of the hardware casing to sense environmental conditions via the
hardware casing.
5. The method of claim 2, wherein coupling the components to the interior surface
25 comprises coupling the components to the hardware casing to dissipate heat generated by
the components via contact with the hardware casing.
6. The method of claim 1, wherein determining comprises adapting the pattern of
interconnects for application on to the interior surface, wherein the pattern of
30 interconnects is designed for application on to a circuit board.

7. The method of claim 1, wherein applying comprises applying a second layer of material over the pattern of interconnects, wherein the second layer comprises a non-conductive material, a second pattern of interconnects, and a connection to the first pattern of interconnects.

8. The method of claim 1, wherein applying comprises attaching a mount to the interior surface, the mount being coupled with the pattern of interconnects and being adapted to couple the pattern of interconnects with a component of the components.

9. The method of claim 1, wherein applying comprises painting the pattern of interconnects onto the interior surface with a conductive material, wherein the interior surface is a substantially non-conductive material.

10. The method of claim 9, wherein painting comprises applying the pattern of interconnects to the surface via mesh screening.

11. The method of claim 1, wherein applying the pattern of interconnects to the laminate comprises applying the pattern of interconnects to a thin, non-conductive film and fixing the film to the hardware casing.

12. The method of claim 1, wherein applying comprises coating the interior surface with a very thin sheet of metal, printing wire patterns onto the metal using a compound that resists etching, and subjecting the metal to a chemical etching process that removes all exposed metal.

13. A hardware casing for mounting components of a device, comprising:

a pattern of interconnects applied to an interior surface of the hardware casing, being based upon a topography of the interior surface and capable of transmitting signals, wherein the pattern comprises at least one independent path for transmitting a signal between the components; and

mounting sites designed for mounting the components to the interior surface, the mounting sites being coupled with the pattern of interconnects, wherein positioning of the mounting sites is based upon the topography.

14. The hardware casing of claim 13, further comprising components coupled with the pattern of interconnects via the mounts, the components being independently manufactured to perform distinct functions of the device.

15. The hardware casing of claim 14, wherein the components comprise an optical switch attached to the hardware casing and communicatively coupled with the pattern of interconnects, wherein the optical switch toggles in response to a change in light sensed by the optical switch.

16. The hardware casing of claim 14, wherein the components comprise a pressure-sensitive switch coupled with the pattern of interconnects via one of the mounts.

17. The hardware casing of claim 13, wherein the pattern of interconnects comprises a conductive paint applied directly to the hardware casing, wherein the hardware casing is composed of a substantially non-conductive plastic.

18. The hardware casing of claim 17, wherein the hardware casing is composed of a pliable material.

19. The hardware casing of claim 13, wherein the pattern of interconnects is coupled with the hardware casing via at least one layer of non-conductive laminates.

20. The hardware casing of claim 13, wherein the pattern of interconnects applied to an interior surface of the hardware casing comprises a layer of metal having portions etched away to reveal the pattern of interconnects.

21. A system having a device encased by a hardware casing, the system comprising:

components, the components being manufactured independently and capable of performing separate functions of the device;

5 a pattern of interconnects applied to an interior surface of the hardware casing, the pattern comprising at least one independent path for transmitting a signal between components independently manufactured and designed to perform separate functions and mounted on the hardware casing, wherein the pattern is based upon a topography of the interior surface;

10 mounts coupling the components to the interior surface, the mounts being coupled with the pattern of interconnects, wherein positioning of the mounts is based upon the topography.

22. The system of claim 20, wherein the components comprise sensors to sense environmental conditions, the sensors being oriented to face the exterior of the system.

15 23. The system of claim 20, wherein the pattern of interconnects resides on a laminate, the laminate being adhered to the interior surface of the hardware casing.

20 24. The system of claim 20, wherein the pattern of interconnects is coupled with a circuit board internal of the device to communicatively couple the components with other components mounted to the circuit board.